Portland Harbor FAQs

1. Where's Portland Harbor?

Portland Harbor is an industrial area along the lower Willamette River. The Portland Harbor Superfund site is an approximately 12-mile stretch of the river from the Broadway Bridge to Sauvie Island.

2. Who decides how the site is cleaned up?

The Environmental Protection Agency decides how the site will be cleaned up. EPA project managers evaluate the huge amounts of information that's been gathered about the area and will create a plan for how to remediate the contamination and meet the goals for cleaning up the river. Responsible parties will implement the cleanup plans chosen by EPA.

3. Who oversees the cleanup work?

EPA is in charge of the project overall and is responsible for overseeing all in-water cleanup work. The agency will evaluate different options and select cleanup remedies for the site. The work is being closely coordinated with the Oregon Department of Environmental Quality (DEQ), which is the lead agency on upland site cleanup, and other state and federal agencies and tribal nations.

4. What is the goal of the cleanup? How clean is clean?

The goal is to protect human health and the environment. EPA uses established criteria to evaluate cleanup alternatives. Chosen remedies must be protective, effective both short and long term at reducing toxicity, in compliance with applicable laws, affordable, implementable, and acceptable to the community. When it comes to how clean is clean, the cleanup remedies will be designed to reduce risk and meet cleanup goals. However, this is not the same as removing every speck of contamination. The different possible remedies are evaluated for how well and how quickly they can help the site meet the cleanup goals while meeting the established criteria.

5. So does this mean that when cleanup is done, I can eat the fish?

Not necessarily. The Portland Harbor Superfund cleanup process is designed to address the legacy contamination present at the site. However, there are other factors that influence the overall health of aquatic species in the Willamette River. Mercury, for example, is a chemical of concern that affects fish in the Willamette. Some species have consumption warnings because of high levels of mercury; mercury levels in fish is a worldwide issue not likely to be remedied by Portland Harbor cleanup work.

6. What is the Willamette River contaminated with?

The Superfund process is evaluating contaminants such as petroleum products (polyaromatic hydrocarbons-PAHs), metals (e.g., lead, zinc), pesticides like DDT, and polychlorinated biphenyls (PCBs) from more than 100 years of marine and other activities in the region. Two of these chemical groups – PCBs and the pesticide DDT – are banned today and reflect legacy contamination. There are other types of pollution in the river that are being managed and cleaned up through other regulatory cleanup processes.

7. What about other sources of contamination?

Sources of contamination that are upstream of the Portland Harbor Superfund site and/or on the lands along the river must be controlled to prevent recontamination. EPA and its partners are taking steps to evaluate and reduce the potential for recontamination. Meanwhile, other efforts are under way to clean up other pollution sources, like the City of Portland's Big Pipe project, which has made major strides in reducing the occasional flow of sewage into the river.

8. What are the pros and cons of dredging? Capping? Monitored natural recovery?

EPA selects remedies that have a strong track record of being effective at meeting cleanup goals. Three are most commonly used, and they're often used in combination with one another. Dredging, which involves scooping up sediments out of the river for disposal in a confined facility, can remove a lot of sediment in a short amount of time. However, it disturbs sediment and can increase turbidity, and it can only be conducted during a short window of time when fish are not migrating in the Willamette. Capping involves placing clean sands and other materials over contaminated areas, effectively isolating them from the environment. Capping creates areas in the river that must be managed long-term and may interfere with in-water activities, and capping work also must be conducted during very specific periods of time. Monitored natural recovery can include both long-term natural processes and utilizing materials that help to speed up natural processes. [MAYBE A MATRIX HERE?]

9. Are you considering other options, like treatment technologies that use physical or chemical processes, for dealing with the contaminated sediments?

Yes. The harbor-wide draft Feasibility Study will analyze a variety of remedies for addressing the wide range of contaminated sediments in the harbor. Among possible options to be evaluated will be innovative technologies, on-site treatment, capping, monitored natural recovery, removal to distant landfills, and the use of "Confined Disposal Facilities near the river. More innovative treatments must have an established track record to be selected.

10. What will be done to prevent air contamination during the cleanup?

Dredging and sediment handling operations at other northwest Superfund sites with similar contaminants have found no substantial adverse impacts to air quality. Most chemicals of concern identified in Portland Harbor sediments do not evaporate readily, and generally do not include volatile compounds such as gasoline, benzene, or chlorinated solvents, which would be likely to evaporate into the air. During dredging and sediment handling, EPA and the responsible parties would be monitoring for signs of dust dispersal or volatilizing contaminants, and would take corrective action as needed such wetting down sediments (if they become dry), covering barge loads and stockpiles, and other protective measures.

EPA and some parties are also active on the "green remediation" front, in which cleanup activities are designed to minimize environmental impacts. At the Port of Portland's early action efforts at terminal 4, the Port required the use of low-sulfur diesel by contractors to help minimize air quality impacts.

11. What human health risks are associated with the Portland Harbor Superfund Site?

Human health risks are based on what people do and are likely to do at Portland Harbor. The Public Health Division of the Oregon Department of Human Services and the U.S. Agency for Toxic Substances and Disease Registry (ATSDR) have conducted a comprehensive Public Health Assessment of Portland Harbor. A concise and informative fact sheet is available on the web, but the highlights from their evaluation include:

- The levels of chemicals found in the water, dirt, and sediment in the Portland Harbor study site do not pose a health risk for recreational users, including children.
- Eating resident fish from the Harbor continues to be the main health hazard from this site. "Resident fish" are those that live their entire lives in the Harbor and do not migrate out to the ocean or other waters. Resident fish include bass, carp, and catfish but not salmon, steelhead or lamprey.
- Bacterial contamination in the river [not related to the Superfund Site] could potentially cause bacteria-related illnesses, especially if swimming near a combined sewage overflow area (CSO) after heavy rainfall.

12. What's the difference between a Public Health Risk Assessment and a Superfund Risk Assessment?

Public Health Assessments (PHAs) are performed by Health Departments and the Agency for Toxic Substances and Disease Registry (ATSDR) to help the public avoid existing risks. They:

- Evaluate exposures and impacts to public health of chemicals and pathogens in the environment.
- Identify likely exposure pathways and potentially exposed populations.
- Recommend ways for the public to prevent or reduce exposure.

Superfund Risk Assessments (RAs) are performed for Environmental Agencies to determine cleanup levels that will reduce or eliminate risks. They:

- Provide an understanding of potential human health and ecological risks posed by a contaminated site.
- Identify likely exposure pathways and potentially exposed populations.
- Evaluate potential effects on sensitive populations and ecosystems.

13. How are the cleanup standards being developed, and why are the Portland Harbor Standards more stringent than comparable Superfund sites in other parts of the country?

14. How much has been spent on the Portland Harbor Superfund site so far, and how much is it expected to cost overall?

The Lower Willamette Group (LWG), a group of public and private entities, signed an agreement with EPA in 2001 to prepare the Remedial Investigation and Feasibility Study under EPA's direction. The LWG includes the City of Portland, the Port of Portland, NW Natural, and eleven private companies. The group is a small subset of the potentially responsible parties identified by EPA. The group has spent over $85 million on the studies to date. EPA has not yet determined who will pay for the cleanup or how much it will cost in the end.

15. You've spent $90 million but nothing's been cleaned up yet?! Why not?

This type of Superfund project, where there is no immediate and acute threat to humans or the environment, is designed to be a deliberative and careful process that carefully evaluates the pollution to be cleaned up. This site is very complex: it stretches nearly 12 miles, involves many chemicals of concern, and likely more than 100 potentially responsible parties. So a lot of data was needed to help pull together a thorough and accurate study, which will then be used to develop a thorough and effect cleanup plan.

16. During cleanup, what happens to marine operations in and along the river? Will I still be able to work? Can I go out and use my kayak?

The cleanup plans have not been designed yet. EPA and the responsible parties will work together to design plans that minimize disruptions to normal river uses while ensuring that human health and safety measures are sufficiently met.

17. How is the community involved in the project?

The Portland Harbor Community Advisory Group meets monthly … EPA will conduct a formal process to obtain oral and written comments from the public about the cleanup alternatives and consider the public's comments before choosing the cleanup alternative. [more]

18. Does EPA consider the negative effects on the economy of an expensive cleanup?

19. What happens to sediments that are dredged from the river? What is a Confined Disposal Facility, and why is it being considered?

20. What effect would an earthquake like the one in Japan have on a confined disposal facility?

21. It seems unlikely that anyone could ever catch and eat enough fish to pose a health risk. Is EPA exaggerating the risks to the public? Are people really eating these non-native fish?